

REMARKS

Claims 8-16 now stand in the application, original claims 1-7 having been canceled and new claims 8-16 added. Reconsideration of the application and allowance of all claims are respectfully requested in view of the above amendments and the following remarks.

Regarding the restriction requirement, the remarks of the response filed May 13, 2002 clearly and distinctly pointed out that all of claims 2-7 have been amended to depend on claim 1. Given that this on its face removes entirely the only basis for the restriction requirement, and that this would be apparent to the examiner, no further discussion was necessary. Further, even if this is not an adequate traversal of the original restriction requirement, claims 2-7 are effectively new claims, new dependent claims which did not exist in the case before. Even if the examiner considers the original restriction requirement to have been proper, claims 2-5 must be examined if they are directed to the same invention as the elected claims (which they are), and claims 1, 6 and 7 must be examined if they are not restrictable from amended claims 2-5 (which they are not). Thus, the new claims must be examined unless they are found to be independent and distinct pursuant to MPEP 821.04. This is clearly not the case, and all claims should be examined at this time.

In the new claims 8-14 added herein, claims 9-12 and 15 are directed to the same invention as elected claims 2-5, and no shift in elected invention has occurred. Claim 11 corresponds to the elected species of original claim 4.

It is noted that the examiner does not consider claim 1 to be a previous claim to claims 2-4. The undersigned is unaware of any legal precedent or USPTO rule which permits the

examiner to decide that a previous claim properly in the case is not a previous claim. Under MPEP 809.03(C), claim 1 is clearly a linking claim with respect to elected claims 2-4, and under MPEP 804 claim 1 may be retained in the application. In any event, claim 9 has now been rewritten in independent form

As to the drawing objection, the claims have been amended to specify that the gas flow is between the torch and the preform, and this is as illustrated in Fig. 2.

As to the Section 112 rejection of claim 3, the narrower range has been omitted from the new claim 10 and included instead in a new claim 15.

The rejection of claim 2 for anticipation by Fleming is respectfully traversed.

The present invention is directed to a method of fabricating an optical fiber preform wherein a plasma torch is used to glaze the outside surface of the preform, and a flow of gas between the plasma and the preform reduces the power of the plasma in this area to reduce the deposition of soot during the glazing operation. As discussed at lines 28-30 of page 2 of the present application, glazing is performed by heating with a plasma torch without feeding any particles to the mouth of the torch. Since the gas supplied via tube 36 in Fig. 3 of Fleming is carrying silica particles, it is clear that Fleming is not illustrating a glazing operation in Fig. 3. Accordingly, there is no anticipation.

New claim 16 has been added to emphasize that the source of power-reducing gas is substantially free of silica particles. This is not new matter, in that it is clear from a reading of the specification, particularly lines 28-30 of page 2 and lines 33-35 of page 5. Applicants consider claim 16 to be simply a clarification of claim 9, but if the examiner considers claim 16

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to be allowable and not claim 9, applicants are willing to incorporate the limitations of claim 16 into claim 9.


The rejection of claims 2 and 4 for anticipation by Drouart is also respectfully traversed, for essentially the same reasons. The gas supplied to the front of the plasma torch in Drouart is supplying silica particles, and is not performing a glazing operation as is recited in claims 2 and 4 (now claims 9 and 11).

The rejection of claim 3 for obviousness over the combined teachings of Fleming and Drouart is also respectfully traversed. Neither of these references teaches the supply of a gas to the mouth of the plasma torch during a glazing operation.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please cancel claims 1-7 without prejudice or disclaimer.

Please add the following new claims:

8. A plasma torch for locally heating a target, said torch including means for injecting a substantially particle-free gas between the plasma torch and said target in the area of said target to be heated so as to reduce the power of said plasma in said area.
9. A method of fabricating an optical fiber preform including an operation of glazing the outside surface of said preform using a plasma torch for localized heating of the preform, wherein said plasma torch includes means for injecting a gas between the plasma torch and said target in the area of said target to be heated so as to reduce the power of said plasma in said area, said method including the step of injecting said gas between the plasma torch and said preform in the area of an outside surface of said preform on which said plasma impinges, to thereby reduce the power of said plasma in said area.
10. The method claimed in claim 9 wherein the flowrate of said gas is from 3 l/min to 6 l/min.
11. The method claimed in claim 9 wherein said gas is air.

12. The method claimed in claim 9 wherein said gas is a neutral gas.

13. A system for fabricating an optical fiber preform, said system including:
means for holding said preform at both ends,
a plasma torch for localized heating of said preform, wherein said preform is said target,
said plasma torch including means for injecting a substantially particle-free gas between the
plasma torch and said target in the area of said target to be heated so as to reduce the power of
said plasma in said area,
means for rotating said preform about its longitudinal axis,
means for moving said preform relative to said plasma torch in the direction parallel to
said axis, and
means for causing said plasma torch to inject said gas between said preform and the
plasma torch in the area of the outside surface of said preform on which said plasma impinges.

14. The system claimed in claim 13 wherein said gas injector means include an
injector nozzle fixed relative to said torch, in the vicinity of which it is positioned so as to form,
conduct and orient a jet of gas at a particular flowrate onto the area of the outside surface of said
preform on which said plasma impinges.

15. The method claimed in claim 9 wherein the flowrate of said gas is 4 l/min.

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16. The method claimed in claim 9 wherein said gas substantially particle-free.